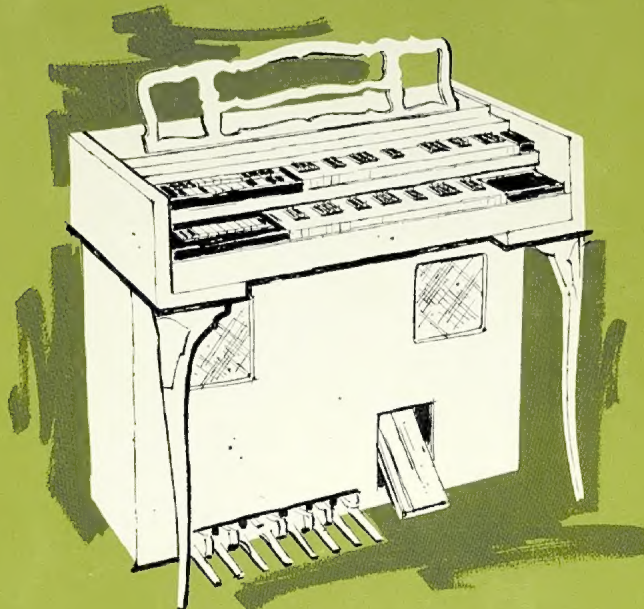


OWNER'S MANUAL

"Heritage"
model



LOWREY  ORGAN



To get the most from your Lowrey, to fully enjoy its great musical possibilities, we sincerely urge you to read this manual carefully. Certain sections will warrant re-reading several times as your musical ability increases. The time you spend will repay you a hundred-fold in additional pleasure, enjoyment and satisfaction.

GUARANTEE

The Lowrey Organ is guaranteed to be free from defective material and workmanship and the manufacturer agrees to remedy any such defects, or to furnish a new part in exchange for any part of its manufacture which under normal installation, use and service discloses such defect, provided the instrument is delivered by the owner to us or the authorized dealer from whom the instrument was purchased, intact for our examination, with all transportation charges prepaid to our factory, within one year from the date of sale to the original purchaser, and provided such examination discloses in our judgment that it is defective.

This guarantee does not apply to vacuum tubes and the loud-speakers covered by the guarantee of their makers, which is ninety days from date of purchase. We assume no liability under this guarantee if the instrument has been subjected to misuse, neglect, accident, incorrect wiring not our own, or any changes made to the circuits or any part of the instrument, except substitution of resistors and condensers and provided said resistors and condensers are of high quality brand names of manufacturers whose products have been approved by us, and provided further that there has been no improper installation or use of the instrument other than provided for in the instructions accompanying the purchase of the instrument, nor does this guarantee apply to parts which have been repaired outside of our factory, nor to instances where the serial number of the instrument has been removed or defaced, or changed, nor to accessories not of our own manufacture used therewith.

This guarantee is in lieu of all other guarantees expressed or implied, and no representative or person is authorized to assume for us any other liability in connection with the sale of the instrument.

THE LOWREY ORGAN COMPANY
7373 N. CICERO AVE. • CHICAGO 46, ILLINOIS



a story of the past

Well over two thousand years ago the first organ pipes were developed. Through the centuries the organ grew in versatility—but it also grew in size, in weight and in cost. By the end of the 19th century some organs had as many as six—and even seven keyboards (manuals).

Not many years ago, only a few of the wealthiest

families were able to build a small organ into their homes. It was not until recent years that a spinet organ was available for the home. But thanks to modern science, you now have a spinet organ. This truly remarkable electronic instrument has solved the three problems of enormous cost, excessive space required and tremendous weight.

a few words about the LOWREY organ

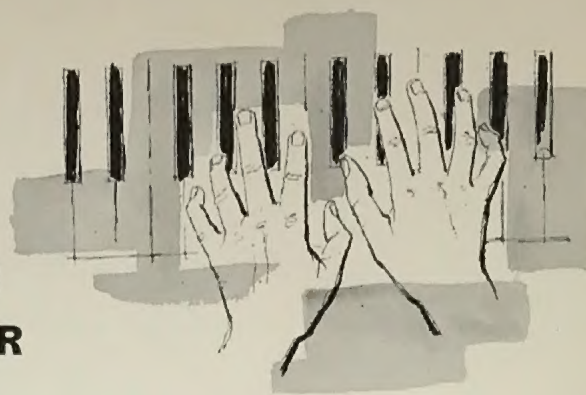
Since 1894, Lowrey has spent many pioneering years in research and development of fine organ tone. Some work was done as early as 1910 and, beginning in 1918, a great deal of research went into several types of electric generators. With the advent of the electronic vacuum tube, Lowrey began in 1928 to develop what later became known as an "electronic" organ.

Through the 1930's and 1940's many different generating systems were developed, some of them which are now being used by other companies. These were all abandoned by Lowrey in favor of the new "Eccles-

Jordan" circuit, which today is the most advanced and stable circuit in the industry. Thus, your Lowrey is different than any other organ in that it starts with the odd harmonics of a clarinet tone, and as a result can produce not only good reed tones but also clear, clean flute tones and fine string tones, rich in harmonics.

The Lowrey was not an "over-night" discovery. The many pioneering years spent in organ research and development have resulted in the creation, design and manufacture of a high quality, dependable organ which is considered as an outstanding achievement.

are you ARTIST, AMATEUR or BEGINNER



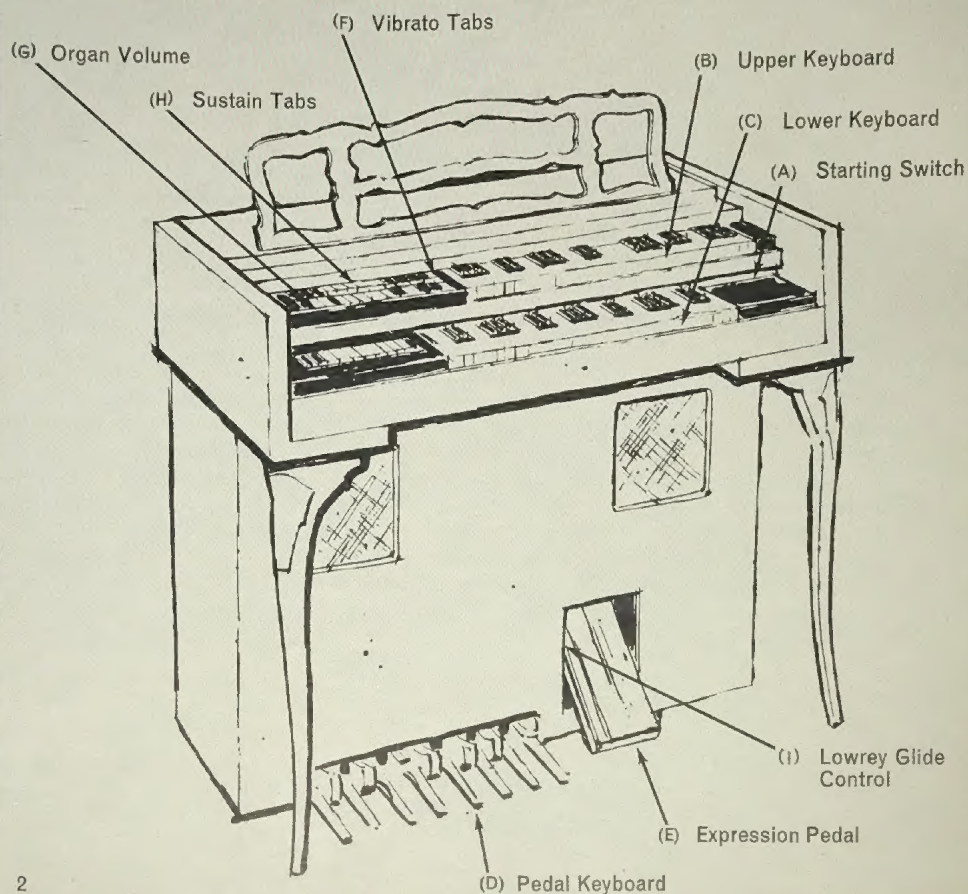
If you have had experience with an acceptable organ, you will be familiar with the strange words of "stops"—"footages"—"solo"—"sustain," etc. Thus, you will **instantly** feel very much "at home" with your Lowrey Heritage.

If you have had experience with a keyboard instrument but not with the organ, you will want to read all that follows. The organ is different than other keyboard instruments, since it encompasses practically every field of tone and has a greater dynamic range than any other musical instrument. If you wish to purchase organ music, you will find that there is a vast quantity of Lowrey organ music available from

most music dealers. When inquiring about music, be sure to ask for Lowrey organ music.

With the wealth of fine Lowrey organ methods that are available today, everybody can play the Lowrey Organ (even though you have never played a note before). May we also refer you to the exclusive Lowrey "Minit-Music" method—available only to purchasers of the Lowrey Organ. After you are playing your favorite melodies, either with "Minit-Music" or with any other organ method, you will enjoy many countless hours at your Lowrey Heritage with all of its vast resources.

**controls
and their
operation**



NORMAL	OFF	15	SOFT							MED	OFF	SLOW	LIGHT	ON
ORGAN VOLUME	PEDAL SUST	PEDAL	PEDAL	PEDAL	VIBRA HARP	HARPER CHORD	GUITAR	MUSIC BOX	MANUAL SUST	MANUAL SUST	VIBRATO	VIBRATO	VIBRATO	
SOLO	ON	8	MED	FULL	VIB. SH SUS. L	SUS. M	VIB. SH SUS. L	SUS. L	LONG	ON	FAST	HEAVY	ON	

SOLO 16	TROMBONE 16'	FLUTE 16'	SOLO 8'	FLUTE 8'	CLARINET 8'	TRUMPET 8'	OBCE 8'	STRING 8'	SOLO 4'	FLUTE 4'	STRING 4'	SOLO 5'	QUINT 5'
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SOFT									OFF
ACCOMP	SOLO 8	MELODY 8'	DIA. PASON 8'	TROMBONE 8'	FRENCH HORN 8'	ENGLISH HORN 8'	VOX HUMANA 8'	STRING 8'	UPPER TO LOWER 8'-4'
FULL									ON

controls and their operation

Just to make sure you understand the basic parts of your Lowrey Heritage, carefully read each of the following paragraphs with the organ in view. A good knowledge of your instrument and what it can do will assure you of greater ease in playing it, and thus greater satisfaction and enjoyment.

(a) Starting Switch. This "On-Off Switch" to the right of the lower keyboard controls the entire organ. It will "warm up" in about fifteen seconds, but a few seconds additional time may be required for the vibrato section to take effect.

(b) Upper Keyboard. This is the Upper or "Swell Manual." Generally, it is played with the right hand, but many times it is played with both hands or just the left hand alone. The stop tabs in the top two rows control the tones for this Upper Manual and they may be played singly or in any combination. They are called "Stops" because they stop the particular voice when the tab is in the "Off" position. That is, when they are horizontal. Tilting the tab forward "turns on" that particular voice. Notice how easy it is to quickly select the voice or voices you desire.

(c) Lower Keyboard. This is known as the Lower or "Great Manual." Although the left hand is generally used on this manual, there are many occasions when both hands are used or just the right hand alone. The stops which affect the lower Manual only are those in the lower row—the black Solo 8' through and including the String 8'.

(d) Pedal Keyboard. Note that you have a full octave of thirteen pedal keys, the equivalent of 16' and 8' pipes, from C through C an octave above. The tones from these pedal keys add a rhythm, or in faster or popular music, a "beat." Thus, as in an orchestra,

while the pedals keep a rhythm, one hand can play the melody and the other hand can add an accompaniment. As you listen to an orchestra, generally you will hear these three "levels" of music.

(e) Expression Pedal. As with all organs and unlike the piano, there is no way to control volume or get "expression" from the keyboard. Therefore, the Expression Pedal, operated by the right foot, permits you to change the volume from loud to soft—just as a singer varies the volume or his voice or as an orchestra changes the amount of sound it produces.

(f) Vibrato Tabs. These are the three black tabs to the right in the top row. They permit you to add "wavering" effects to all types of music. Their convenient location and ease of operation will enable you to add an amazing variety to your music.

(g) Organ Volume. This tab controls the overall volume of both manuals and the pedalboard. This will be discussed at greater length under the heading of "Mechanical Stops."

(h) Sustain Tabs. The two red Manual Sustain tabs in the upper manual section, as well as the "Pedal Sustain" tabs in the upper section will be covered completely under the heading of "Mechanical Stops" further in this manual.

(i) Glide Control. This innovation is exclusive with Lowrey Organs—no other instrument offers this wonderful feature. It helps to complete the illusion of the guitar, trombone, trumpet and strings as they are played in an orchestra. For those who are not too familiar with organ, we suggest that this control, mounted to the left of the Expression Pedal, not be used until some degree of familiarity with the instrument has been developed.

SOLO 16	TROM BOONE 16	FLUTE 16	SOLO 8	FLUTE 8	CLARI NET 8	TRUMPET 8	OBOE 8	STRING 8	SOLO 4	FLUTE 4	STRING 4	SOLO 5 1/2	QUIN 5 1/2
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A hand pointing to the left, with a grid of text in the background. The text in the grid includes: GLESH, VOX, STOR, CON, HUMANA, and 8.

and what they mean

In this section we will first cover the speaking stops so that you will know something about the history and use of each one. Following this, each of the mechanical stops will be covered in detail.

If you are not familiar with the many stops in the vast field of organ terminology, the subject must appear confusing. However, it is really quite simple. All stops fall into one of four families known as Flute, String, Reed and Diapason. In the bottom row of tabs is the Diapason 8', and in addition, various Diapasons can be created by combinations of other stops. For example, add more String or Reed tones for a more biting Diapason, or Flutes for a softer or "mellower" Diapason.

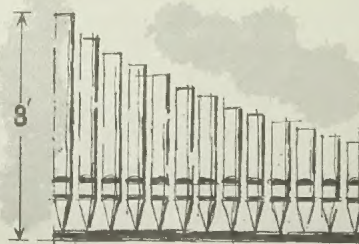
FOOTAGE

go up the scale, each pipe becomes progressively shorter—however, each pipe in the series is referred to by the actual length of the longest pipe even though the rest of them are smaller. So, although there are no bulky, space-consuming pipes in the modern and versatile Lowrey organ, the stops are marked in "footages" for your convenience.

Now, turn on the 8' Flute for the Upper Manual. Middle C is the lowest C on the manual. Press this key and you will hear the 8' voice. Holding the same key you now add the 4' Flute you also hear a "tone" exactly one octave **higher** in pitch. If you add the 16' Flute, you now hear a third tone one octave **lower** in pitch than the 8' voice. When you add the Quint 5½' you will hear the G immediately above middle C. With these four tabs in the "on" position you will hear four tones and in the organist's language, you have "coupled" these four sets of pipes so that every time you press one key you will hear four tones. If you play a chord of four notes you will produce sixteen tones. This is what gives the organ its full body and richness of tone.

Just remember that 8' is the basic pitch. The 16' stop sounds one octave lower and the 4' stop sounds one octave higher. The Quint 5½' plays a fifth above which will be explained in detail under the discussion of that voice in the next section.

Pipe organists, who may not be familiar with the modern electronic "home" organ, might refer to the lower manual as the "Great" Manual. This is correct in pipe organs because the "Great" has more stops, footages and power than the upper or "Swell" Manual. However, all modern home organs have most of their voices on the upper or "Melody" manual so that it is easier to play **all types of music**, not just classical and religious.



PRESETS

The group of four white tabs printed in red in the top row are known as "presets." In other words, just as with large and very expensive organs, several qualities have been drawn together and connected to a single stop tab so that you can instantly get different voices to produce various effects.

NOTE: Vibrato and Sustain instructions are indicated on these four tabs. These "presets" require certain techniques which you will quickly acquire and greatly enjoy once you have tried them.

VIBRAHARP

This voice is always played with the "Long" Manual Sustain and a "Slow-Heavy" Vibrato. The technique of the fingers is definitely staccato and can be played in single notes or with chords. However, all notes of the chord should not be struck at once; they should be 'rolled' to duplicate the vibraharp which you frequently hear in popular music. When learning the technique you might start with selections such as "Song of the Islands," "Melody of Love," "Sleep," etc. For accompaniment on the lower manual you can couple the same voice using the Upper to Lower 8'-4' coupler, or the Melodia 8', French Horn 8' or String 8' from the Lower Manual voices.

HARPSICHORD

For this effect use the "Medium" Sustain and no vibrato. We suggest that you use this voice with the red "Solo 8'" on the Upper Manual and turn on the Upper to Lower 8'-4' coupler so that the voice carries to the lower manual—you now have an 88-note keyboard. Play in a completely staccato fashion with both hands and try "18th Century Drawing Room," Paderewski's "Minuet in G," etc. For a more brilliant Harpsichord, try adding the String 4' to the Harpsichord preset.

GUITAR

With this voice use the Long Sustain and Slow-Heavy Vibrato—try "Blue Hawaii" or one of the selections mentioned under Vibraharp. Start with single notes. Do not hold the keys. Depending upon the selection and the speed with which it is played, the technique can be staccato or the key can be held for a small fraction of a second each time. Your own judgment will help you after you listen to guitar music. To complete the sound of the Guitar, use the Lowrey Glide Control on certain notes, pressing the Glide Control with the right foot at the same time you strike certain notes. Do not press the Glide Control for every note played!

This voice can be changed slightly by adding the Clarinet 8' or the Flute 8'. In fact, a 'steel guitar' effect can be created with just the Flute 8' and Fast-Heavy Vibrato. To introduce a string-like quality, add either the 8' or 4' String, whichever seems preferable for the selection being played.

MUSIC BOX

This is a soft voice and it generally should be played without the Solo 8' tab. Use the Long Manual Sustain and no vibrato. As a pure music box, it should be played with both hands in the upper half of the keyboard in an extremely staccato fashion. The lower manual and pedal board are not used for this effect. For slightly different voices, add either the Flute 4' or String 4'.

The
LOWREY
VOICES

upper
manual

TROMBONE 16' (Reed Family)

Principally, the function of this stop is similar to that of the bass trombone in an orchestra. However, to simulate the orchestral instrument, use a vibrato setting of Slow-Heavy and play on the Upper Manual in the lowest two and one-half octaves. Exclusive with the Lowrey, an unusual voice can be obtained over the entire manual when it is also combined with the Quint 5½' in any vibrato choice to suit the music.

FLUTE 16' (Flute Family)

Flute stops are essential to any competent organ. A good flute should be round and mellow, clear and clean without overtones or "fuzziness." A great deal of research has gone into the flutes of the Lowrey. You will enjoy the fine quality of this and the other flute stops since they add a "mellowness" which combines beautifully with all other stops on the manual.

Note: When playing a chord in the lowest octave of the upper manual and using just the 16' voices, you will hear only the lowest key depressed. This has been designed purposely to avoid any "muddiness" or distortion which would otherwise occur.

FLUTE 8' (Flute Family)

This stop is a companion to the 16' Flute but plays one octave higher. It combines excellently with all other voices. As with all flutes on the Lowrey, it is a true flute, round and mellow, ideal for soothing music. This and the other 8' voices on the upper manual are purposely designed to repeat after the top E—thus, single notes should not be played beyond this point but of course, this does not apply to playing chords.

CLARINET 8' (Reed Family)

This is an excellent solo stop. When played without vibrato, it closely resembles the orchestral clarinet because it has a smooth, hollow, reed tone of great beauty. It not only possesses this richness of the orchestral clarinet but in the middle portion of the keyboard it is superior to the orchestral instrument, because it is less shrill. When combined with the Quint 5½', many unusual and "oriental" effects can be obtained. For related effects, it is desirable to also add the trumpet or string voices.

TRUMPET 8' (Reed Family)

When played as a solo in the middle register of the Upper Manual with a Slow-Heavy Vibrato, this stop to some extent produces the effect of an orchestral trumpet. Adding the "Medium" manual sustain will give a natural reverberation which somewhat resembles the sound of a trumpet in a large auditorium. Quite often, it is used to combine with other stops to give a brilliance to the music being played. In such cases the addition of a Fast-Heavy Vibrato for popular music is most desirable.

OBOE 8' (Reed family)

This is an excellent solo stop, which closely resembles the plaintive voice of the orchestral instrument when played in the lower three octaves. For those who know the orchestral instrument, we merely mention that this voice has a greater range. A fascinating and haunting quality can be obtained by adding the Clarinet 8' and the Quint 5 $\frac{1}{3}$ '. In such case, the effect is created with or without vibrato and may be played throughout the entire manual.

STRING 8' (String Family)

This is a foundation stop which is appreciated by the pipe organist because of its fine quality. When played without a vibrato you will hear the rich harmonics of a fine pipe organ. With the Fast-Heavy Vibrato in the upper register, it closely resembles the fullness of an orchestral violin. By playing in the lower portion of the keyboard a Viole effect can be obtained with the use of the Slow-Heavy Vibrato. In combination with other stops, this string tone adds a richness and brilliance to the tone quality.

FLUTE 4' (Flute Family)

This stop is typical of the Lowrey's clear, clean flutes and is the "little brother" of the 16' and 8' Flute stops previously discussed. It plays one octave higher than the 8' Flute and two octaves higher than the 16' Flute. It is effective up to and including "E" in the top octave but is purposely designed not to be played as a solo beyond this point. When played with sustain and without vibrato, you can obtain Celeste and bell-like tones; also a brightness and keen quality when combined with other stops.

STRING 4' (String family)

This is the companion of the 8' String and plays one octave higher than the 8' voice. When played as a solo with the Fast-Heavy Vibrato, it closely resembles the "Gypsy" or orchestral violin in a higher register. When combined with other stops, it adds a rich, "biting" quality, very brilliant in nature. It is absolutely essential for many types of organ music.

QUINT 5 $\frac{1}{3}$ ' (Flute Family)

This stop should never be played alone. The reason is that it produces a tone "a fifth" above the key which is struck. In other words, when you press a "C" only the "G" will be heard—if you press a "D" only the "A" will be heard. The top three keys pur-

posely produce no sound. The stop is a "must" on all fine organs because in combination with other stops, it adds a richness called "tone coloring." When combined with the 16' Flute, the basic quality of a "flute organ" will be heard. In combination with other stops where the Quint 5 $\frac{1}{3}$ ' can still predominate, it lends an oriental atmosphere to any melody. Continued experiment with this stop will determine its best uses to satisfy your particular taste and style of playing.

The
LOWREY
VOICES

lower
manual

MELODIA 8' (Flute Family)

Because your Lowrey follows a pattern of the finest organs, this flute stop is quite mellow and slightly hollow, with a perfect blending quality for all the other voices. When arpeggios are played in the top one and one-half octaves, of the Lower Manual, it has a lovely "bell-like" quality which makes a delicate accompaniment for the String or the Clarinet voices in the Upper Manual. To maintain a real beauty of tone, it has been carefully voiced so as not to be over-powering. This and the other 8' voices on the lower manual are purposely designed so that when two or more of the lowest eight keys are depressed, only the lowest tone will be heard. This eliminates any possibility of "muddiness" or distortion which would otherwise occur.

DIAPASON 8' (Diapason family)

This is primarily a pipe organ voice and has a beautiful tone quality for playing hymns without vibrato on the Lower Manual only. However, it is often combined with other stops when a "pipe organ" quality is desired.

TROMBONE 8' (Reed Family)

This stop has the same quality as the Trombone 16' on the Upper Manual but it sounds one octave higher. When played alone on the Lower Manual, it offers the ideal accompaniment for the Trombone 16'—it also makes a fine accompaniment for other combinations on the Upper Manual. In combination with other stops, it adds a resonance or "body" to the voicing.

FRENCH HORN 8' (Reed Family)

This stop can be used with the Solo 8' to play either melody or counter-melody on the Lower Manual. Without a vibrato it closely resembles the orchestral instrument. It has been made a part of the Lowrey since in recent years, the French Horn has become a very important part of many expensive organs. It should be used frequently as the accompaniment for softer voices and combinations of the Upper Manual.

ENGLISH HORN 8' (Reed family)

Essentially, this is a pipe organ voice which has been

handed down through the centuries. It has a keen biting quality which makes a fine accompaniment either with or without vibrato. To some extent it duplicates the orchestral instrument of the same name.

VOX HUMANA 8' (Reed family)

This is purposely the softest voice on the organ. It has its own beauty and usefulness and is not intended to duplicate the human voice. The result of numerous unsuccessful attempts by pipe organ builders over the centuries to imitate the human voice, it has become so well liked that now it is heard often during religious services in a Slow-Light Vibrato for an interlude or offertory. When played with the Heavy Vibrato, the voice has an individual quality ideal for most music. It can also be used to create a slightly different tone when combined with the Melodia 8', Diapason 8' or French Horn 8'.

STRING 8' (String Family)

This voice is identical to the String 8' on the Upper Manual and makes a fine accompaniment for the Upper Manual. It also combines well with all other stops on the Lower Manual to lend a brightness or "crispness" because of the rich harmonics it contains. For a good "cello" solo in the lower part of the keyboard, use single notes only, the Slow-Heavy Vibrato and the "Solo" stop.

PEDALS



PEDAL 16' and 8' (Flute family)

Both 16' and 8' pitches are available on the 13 note pedal keyboard of your Lowrey Heritage. (The black tab located third from the left in the top row of tabs.) These clear, resonant pedal tones provide the rich string bass effect that gives depth and foundation to the music you play. Either of these pitches can be used. The judgment is left entirely to the discretion of the player, based upon his style and the music.

In addition, there are three settings of pedal intensity—soft, medium and full. This versatile arrangement offers the equivalent of 6 individual pedal stops to balance properly to any combination of manual keyboard voices. A complete description of these tabs is discussed on page 8

MECHANICAL STOPS

VIBRATO

This interesting and appealing variation is controlled by the three black tabs at the right end of the bottom

row. They create the wavering effect which you notice most in the violin, the cello and other string instruments. Listen to a singer and you will hear the same vibrato. However, the "speed" of the vibrato (wavers per second) varies with the instrument or voice. So does the "depth" which is the extent of the vibrato above or below the accurate pitch. Some instruments have a great deal of vibrato—others have very little—some have none.

First, with the right hand vibrato tab in the "Off" position, it makes no difference what is "set up" on the other two. The tone will resemble that of a pipe organ which obviously adapts music played in this way to many religious selections as well as some classical music. (However, since music is an expression of a composer's or musician's feelings, there is no positive rule for the use of vibrato.)



Here is the second effect. With the three vibrato tabs off, hold a tone. Then turn the right hand tab to the "On" position. You are now using a "Slow-Light" Vibrato which is ideal for offertories and voluntaries in church music and is used frequently for operatic, light classical, and some ballad selections.

Third, (holding the same tone) move the left-hand tab from Slow to Fast. Now you have a "Fast-Light" Vibrato which can be used for almost any type of music.

For a fourth vibrato, move the center tab from Light to Heavy. Now, all three tabs are in the "on" position so you have a "Fast-Heavy" Vibrato. This is used to a great extent for ballad and popular music. The string voices sound unusually rich and full when this vibrato is used. Unusual "Theater Organ" effects can be obtained when using the flute stops.

For the fifth vibrato combination, move the left hand tab to the Slow position. This Slow-Heavy combination is used less frequently than any of the others but it does have a desirability for Trombone, Trumpet and for solo Cello and Hawaiian effects. This unusual vibrato is applied differently by different musicians.

Note that this simple tab arrangement will permit you to vary your music frequently while you play. Sometimes you will use a particular vibrato for only a few measures—or, by just turning the right-hand tab to Off, you suddenly have no vibrato and after playing four or eight measures, you can easily go back to the previous vibrato.

In summary then, change the vibratos frequently and you will never have the feeling that your music is becoming monotonous. This is the "seasoning"

which you can add to make your music just that much more delightful. When you see other organs, note how superior your Lowrey is, even in instruments that cost a great deal more.

SOLO 16', 8', 4', 5½'

These five solo tabs are another feature originated and developed by Lowrey engineers which will make you both happy and proud that you have selected a Lowrey organ. They produce no sound in themselves but they are probably the most valuable tabs at your finger tips, because they greatly multiply the number of voice combinations from your instrument.

The Solo 8' in the Lower Manual increases the volume of any or all of the five Lower Manual voices. For example, you may find that a solo melody of single notes in the left hand (or just staccato chords) may not be loud enough. Without adding more voices but just by turning on the Solo 8', the volume of the notes played on the lower keyboard will increase and offer the proper contrast to the voices on the upper manual.

Generally, voice combinations are set up for the Upper Manual without any of the solo tabs. Try this by setting up the four flute voices of 16', 8', 4' and Quint 5½'. Now, if you wish to emphasize the lower end of this combination, turn on the 16' Solo. By the same token, the 8' Solo brings out the middle range and the 4' Solo emphasizes the higher range. The coloring quality of the Quint 5½' is accentuated by the use of its solo tab. In other words, these four solos **double** the number of upper manual voices. Each of the light voices is a soft voice and by applying a solo, you then make it a loud voice.

Remember this. If a selection is played on both manuals and you feel that the volume intensity of one manual should be increased, there is no need to add more voices as you would have to do on other instruments. Merely turn on a solo tab or two of your choice and you suddenly lift the melody so it stands out just like a solo instrument in an orchestra. However, do not use all the Upper Manual solo tabs at the same time. The terrific volume increase would only overpower the pedals, cause distortion and possibly abuse the speaker.

When solo stops are not used in either manual you have thousands of tonal combinations which, like other organs, can be arrived at purely by the use of the voice tabs. However, by adding the various solos, you bring into play **additional** thousands of combinations which will make your music just that much more enjoyable and interesting.

No other comparable instrument offers you this "solo" method of easily and simply selecting so many additional tonal combinations.

COUPLER—Upper to Lower 8'-4'

The red tab at the extreme right of the bottom row of tabs will couple any combination of the presets and 8' and 4' Upper Manual voices to the Lower Manual. This tab is colored red to show you that it is associated with all the solid red tabs above as well

as with the white tabs printed in red. Turn on any of the red tabs for the Upper Manual—then, holding a key on the Lower Manual, turn on the "coupler." You will notice that you get the same voice and effect of the Upper Manual.

Only a few of the multiple uses for this tab are suggested below. You might wish to accompany the Vibraharp voice on the Upper Manual with the same voice on the Lower Manual. This would also be true of the Guitar and the Harpsichord.

If you have a combination of 16', 8', 4' and Quint 5½' voices with Sustain on the Upper Manual, you can couple down only the 8' and 4' voices to the Lower Manual for a complete sustain effect below. Also, just as you are able to get a combination of staccato and sustain voices on the Upper Manual, so you can get the same effect on the Lower Manual. For example, using a sustained Vibraharp and 16' Flute on the Upper Manual and coupled to the Lower Manual, add the Solo 8' and Melodia 8' to the Lower Manual. You now have a registration which will permit staccato chords on the Lower Manual with some "reverberation" coming from the Upper Manual.

Remember—the Upper to Lower 8'-4' tab will not couple down any of the 16' or Quint 5½' voices.

PEDAL—Soft, Medium, Full

These two white tabs in the top row control the volume of the 13 pedal keys played with both feet. With both tabs in the "off" position you will have a small degree of pedal volume—hold a pedal note and place the expression pedal part way down. Now, turn the left hand tab to the Medium (Med.) position—and finally turn on the "Full" tab. Here you notice three different degrees of volume or pedal intensity.

For soft classical or liturgical music where there is no definite rhythm, the pedal setting should probably be soft. With a rhythm tune like a waltz or a popular song, you may wish to use the Medium intensity and as you add voices to both manuals and increase the volume from the keyboards, you will probably then wish to use a Full pedal volume.

As you play different selections you will sense the necessity for more or less pedal volume and will soon become accustomed to making the various changes.

PEDAL SUSTAIN

No other instrument offers you the wonderful Lowrey electronic pedal sustain. Using no pedal sustain and the loud pedal volume, press a pedal key several times. Note how the pedal thumps or beats. This is fine for rhythm and popular melodies for dancing. Now, turn "on" the pedal sustain and listen to the tone hang for a fraction of a second. For ballads and romantic tunes this is ideal. The pedal sustain lends an even greater smoothness to such music as religious, semi-classical and "listening" selections. The Lowrey pedal sustain thus eliminates the need for large pedal keys which must be played by a "heel-and-toe" method. You will find also that when the pedals are played rapidly, each pedal key pressed will "ground out" or cancel the previous tone.

NORMAL	OFF	16'	SOFT							MED.	OFF	SLOW	LIGHT	OFF
ORGAN VOLUME	PEDAL SUST.	PEDAL	PEDAL	PEDAL	VIBRA HARP	HARPSI CHORD	GUITAR	MUSIC BOX	MANUAL SUST.	MANUAL SUST.	VIBRATO	VIBRATO	VIBRATO	
SOLO	ON	8'	MED	FULL	VIB 5-H SUS.-L	SUS.-M.	VIB 5-H SUS.-L	SUS.-L	LONG	DN	FAST	HEAVY	ON	

SOLO 16'	TROM BONE 16'	FLUTE 16'	SOLO 8'	FLUTE 8'	CLARINET 8'	TRUMPET 8'	OBOE 8'	STRING 8'	SOLO 4'	FLUTE 4'	STRING 4'	SOLO 5 1/2'	QUINT 5 1/2'
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SOFT													
ACCOMP	SOLO 8'	MELODIA 8'	DIA-PASON 8'	TROM-BONE 8'	FRENCH HORN 8'	ENGLISH HORN 8'	VOX HUMANA 8'	STRING 8'					
FULL													

ORGAN VOLUME

Although your Lowrey Heritage Organ is a spinet in size, it has a great deal more versatility to offer than organs which cost much, much more! In many respects your Lowrey is like a pipe organ since the volume keeps building as voice after voice is added to the manuals. Therefore, it has been equipped with this stop to govern the overall volume of the entire instrument including both manuals and pedals.

When you play with just one or a few stops, you will prefer to have this control in the Solo position. When you use many tabs on both manuals (which requires increasing the pedal volume as well), you will undoubtedly prefer to place this control in the Normal position. With just a moderate amount of stops for both manuals and pedals, the control can be in either position as your judgement dictates.

Remember just one thing. This is an **overall** volume control so when you feel the output of the organ is too loud or distorted, place it in the Normal position. When you play with just a few voices, you will then wish to place it in the Solo position.

ACCOMPANIMENT (Accomp)—Soft, Full

This is an outstanding Lowrey feature which gives you complete control of the volume of the Lower Manual. (The black tab located to the left in the bottom row of tabs.) You now have three volume intensities for the voices on the Lower Manual. For example: turn "on" Melodia 8' and play a chord—now add Accomp "Full"—finally the Solo 8' tab. This makes it possible for the exact volume of the Lower Manual voices to balance properly to any combination of Upper Manual voices.

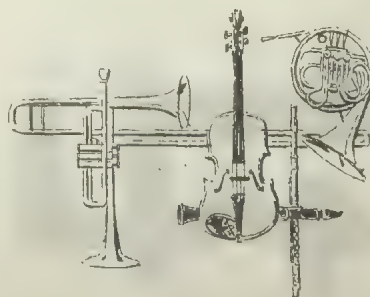
MANUAL SUSTAIN

These are the two red tabs to the right in the upper row of stops—they control the five 8' voices, the four presets, the two 4' voices and of course, the two red solos of the Upper Manual. For your convenience,

this section is marked "percussion"; the voice tabs are printed in red and the mechanical Solo stops are solid red. Turning both of the sustain tabs on will cause the 8' and 4' Upper Manual voices to die away over a period of about two seconds after a key is released. By turning the left hand tab to Medium, there is a sustain which lasts about one second. These two tabs can create many different instrumental effects which will be described later. However, the wide scope of this manual sustain does not stop here.

Reverberation of a most authentic nature can be obtained with your new Lowrey Heritage. Use any selection of 16', 8' and 4' stops and play something in the conventional organ manner. As with any organ if acoustics are poor (due to smallness of the room, carpeting, draperies, and other factors which deaden sound) the resulting organ tone will seem suppressed and restricted in its tonal quality. Then, introduce the "Medium" Manual Sustain and later the "Long" Sustain. You will notice that the walls of the room seem to "disappear" because you have added a natural reverberation which normally could come only from a large vaulted chamber or auditorium with hard floors, walls and ceiling where the sound would echo and so improve the tones produced. Your new Lowrey will sound beautiful no matter how small or acoustically "dead" the room may be.

The many special effects which you can enjoy as a result of the Lowrey percussion system will be covered in detail at the end of the next section on "Registration."



registrations



If you have absorbed the material in the previous pages, you should have a fairly clear understanding of the various terms used by the organist as well as a knowledge of many organ stops. You are now in a position to absorb knowledge of organ "registration."

To begin with, organ registration is nothing more than selecting and combining various voices of an organ so a desired effect is produced when the music is played. Actually, the word "registration" is the same thing to organ music that "orchestration" is to orchestral music. Keep in mind the stops of an organ are to the organist what the palette is to the painter—they each have colors to mix and the final result is dependent upon the ability to understand the individual colors with which they work.

Beyond that, all a person needs when playing an organ is a personal taste and imagination. Just as a painter may have a fine knowledge of colors, and yet be a poor painter because of lack of imagination when using those colors—so may a performer be familiar with music, and yet not please his audience because of his lack of imagination when using the voices.

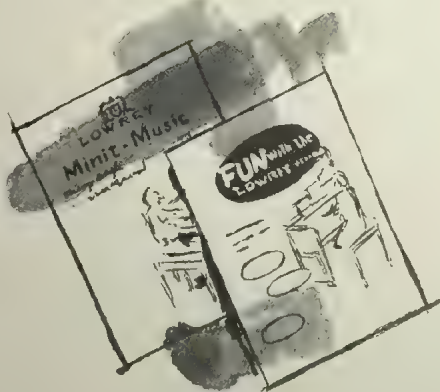
One more thing. Unless a person is a "sound engineer" one room may look about the same as another—however, the acoustics may be very different. Any instrument or voice, particularly an organ, will sound much different in a large room than a small room. Generally, in a large room, an organ sounds better—but if the room is heavily draped, fully carpeted and contains a lot of furniture (people too) the result will

appear muffled or "dead."

Placement of the organ in the room is also very important. There is no way to determine this in advance—only through experiment can the best results be obtained. It will sound better in one place than it will in another—actually it should face an open area so that the sound will not be restricted. Therefore, a particular tab arrangement might sound a little differently if the organ is moved about the room or particularly if it is moved to another room. Avoid if possible, acoustic tile on walls and ceiling, drapes, carpeting and other materials which will absorb sound.

With this understanding, the following registrations are merely "suggested." You will notice they are quite different and you should consider them as basic—in other words try them but undoubtedly you will wish to make some changes to fit the particular selections which you play. Also, you may use several different registrations for one selection because you may play it in various ways and thus create different effects.

Above all, remember this—there is no one prescribed tonal combination for any selection of music. As a master chef seasons a fine dinner because he knows what to use and how to use it—or as an artist mixes his colors in just the right amounts,—so you can blend the many fine voices and different effects of the Lowrey Heritage Organ. Through experiment and a good knowledge of the stop tabs, gained from the previous pages, you can suit your own musical taste and meet the need or mood of any occasion.



"Fun With The Lowrey Organ" in your Heritage Owners Envelope is arranged to acquaint you with the magnificent solo voices of the organ such as clarinet, strings, trombone, oboe—the reverent church qualities which are inherent in every Lowrey organ—a number of the amazing percussion effects: guitar, vibraharp, harpsichord, banjo—and of course, the unusual special effects that are available only on your Heritage.

In addition to "Fun With The Lowrey Organ," suggested registrations are shown on the following pages with selections from the Lowrey Minit-Music to help you create many other beautiful tones and special combinations for your favorite ballads, hits of the day, hymns and the timeless classics.

suggested registrations

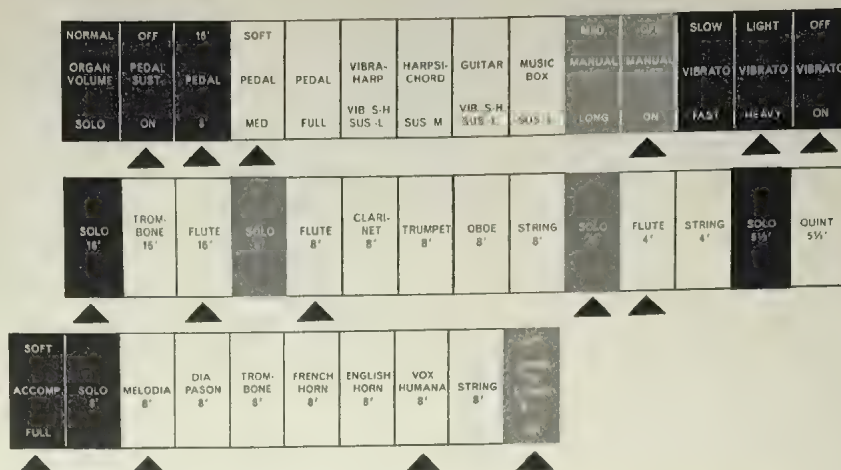
POPULAR

POPULAR

I

'For He's a Jolly Good Fellow'

Play the right hand on the Upper Manual, with the left hand on the Lower Manual.

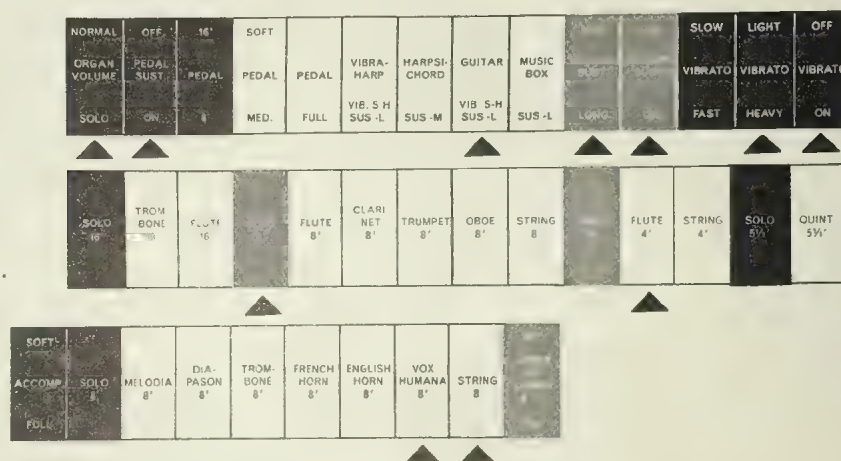


POPULAR

II

'Aloha Oe'

Play the right hand on the Upper Manual with a light quick touch, and the left hand on the Lower Manual. Or, if you like, the left hand may be played on the Upper Manual with the chords 'rolled'.

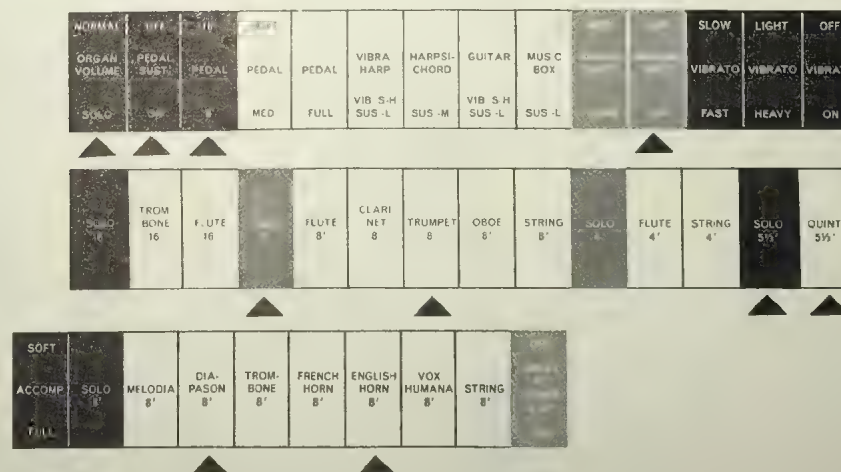


POPULAR

III

'Swanee River'

Play the right hand on the Upper Manual with a light quick touch, almost 'plucked.' The left hand is on the Lower Manual and the pedal is touched lightly.



BALLADS

1

Play the right hand with a light quick touch on the Upper Manual, with the left hand on the Lower Manual. Again, the left hand may be played on the Upper Manual with the chords 'rolled'.

NORMAL	OFF	16'	SOFT							SLOW	LIGHT	OFF	
ORGAN VOLUME	PEDAL SUBT.	PEDAL	PEDAL	PEDAL	VIBRA HARP	HARPSI- CHORD	FLUTE AW	MUSIC BOX	MANUAL SOFT	MANUAL MEDIUM	VIBRATO	VIBRATO	
SOLO	ON	B'	MED.	FULL	VIB S H SUS -L	SUS -M	PIPE S-H SUS -L	SUS -L	LONG	SOFT	FAST	HEAVY	ON

▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲

SOLO 16'	TROM BONE 16'	FLUTE 16'	FLUTE 8'	CLARI- NET 8'	TRUMPET 8'	OBOE 8'	STRING 8'		FLUTE 4'	STRING 4'	SOLO SW. 5%	COUNT 5%
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▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲

SOFT												
ACCOMP.	SOLO 8'	MELODIA 8'	DIA PASON 8'	TROM BONE 8'	FRENCH HORN 8'	ENGLISH HORN 8'	VOX HUMANA 8'	STRING 8'				
FULL												

▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲

11

Play the right hand with a light quick touch on the Upper Manual, with the left hand on the Lower Manual.

NORMAL	OFF	. 10'	SOFT			VIBRA- HARP	HARPSI- CHORD	GUITAR	MUSIC BOX	MED.	DRUM	SLOW	LIGHT	OFF
ORGAN VOLUME	PEDAL SUST.	PEDAL	PEDAL	PEDAL								VIBRATO	VIBRATO	VIBRATO
SOLO	ON	8'	MED	FULL		V.B.S.H. SUS L	SUS M	VIB S-H SUS L	SUS L			FAST	HEAVY	ON

▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲

SOLO	TROM. BONE 6'	FLUTE 16'	SOLO	FLUTE 8'	CLARI- NET 8'	TRUMPET 8'	OBOE 8'	STRING 8'	SOLO	FLUTE 4'	STRING 4'	SOLO	QUINT 5 1/2'

▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲

SOFT														
ACCOMP.	SOLO	MELODIA	DIA PASON	TROM. BONE	FRENCH HORN	ENGLISH HORN	VOX HUMANA	STRING						
	8'	8'	8'	8'	8'	8'	8'	8'						
FULL														

▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲ ▲

1111

Play the right hand with a 'smooth' organ touch on the Upper Manual, with the left hand on the Lower Manual.

NORMAL	OFF		SOFT									SLOW	LIGHT	OFF
ORGAN VOLUME	PEDAL BUST	RECALL	PEDA	PEDAL	VIBRA- HARP	HARPSI- CHORD	GUITAR	MUSIC BOX				VIBRA	WIND	VIBRATO
SOLO	ON	8'	MED	FULL	VIB 5 H SUS -L	SUS -M	VIB 5 H SUS -L	SUS -L				FAST	HEAVY	ON

SOLO	TROM 16'	FLUTE 16'	SOLO	FLUTE 8'	CLAR NET 8'	TRUMPET 8'	OBOE 8'	STRING 8'	SOLO	FLUTE 4'	STRING 4'	SOLO 8 1/2'	QUINT 5 1/2'
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SOFT								
ACCOMP.	SOLO	MELODIA	DIA PASON	TROM BONE	FRENCH HORN	ENGLISH HORN	VOX HUMANA	STRING
FULL	8'	8'	8'	8'	8'	8'	8'	8'

suggested registrations

CLASSICAL

CLASSICAL

I

'Lullaby' (Cradle Song)

Play the right hand with a light quick touch on the Upper Manual, with the left hand on the Lower Manual. Or, play both hands an octave higher on the Upper Manual very lightly.

NORMAL	OFF	16'	SOFT							REC.	OFF	SLOW	LIGHT	OFF
ORGAN VOLUME	PEDAL SUST.	PEDAL	PEDAL	PEDAL	VIBRA HARP	HARPSI-CHORD	GUITAR	MUSIC BOX	MANUAL SUST.	MANUAL SUST.	VIBRATO	VIBRATO	VIBRATO	
SOLO	ON	8'	MED	FULL	VIB S-H SUS-L	SUS-M	VIB S-H SUS-L	SUS-L	LONG	ON	FAST	HEAVY	ON	

SOLO	TROM BONE	FLUTE		FLUTE	CLARINET	TRUMPET	OBOE	STRING	SOLO	FLUTE	STRING	SOLO	QUINT
16'	16'	16'		8'	8'	8'	8'	8'	8'	4'	4'	8'	5 1/2'

SOFT													
ACCOMP	SOLO	MELODIA	DIA-PASON	TROM BONE	FRENCH HORN	ENGLISH HORN	VOX HUMANA	STRING					
FULL	8'	8'	8'	8'	8'	8'	8'	8'					

CLASSICAL

II

'Old Black Joe'

Play the right hand on the Upper Manual, with the left hand on the Lower Manual.

NORMAL	OFF	16'	SOFT							REC.	OFF	SLOW	LIGHT	OFF
ORGAN VOLUME	PEDAL SUST.	PEDAL	PEDAL	PEDAL	VIBRA-HARP	HARPSI-CHORD	GUITAR	MUSIC BOX	MANUAL SUST.	MANUAL SUST.	VIBRATO	VIBRATO	VIBRATO	
SOLO	ON	8'	MED	FULL	VIB S-H SUS-L	SUS-M	VIB S-H SUS-L	SUS-L	LONG	ON	FAST	HEAVY	ON	

SOLO	TROM BONE	FLUTE		FLUTE	CLARINET	TRUMPET	OBOE	STRING		FLUTE	STRING	SOLO	QUINT
16'	16'	16'		8'	8'	8'	8'	8'		4'	4'	8'	5 1/2'

SOFT													
ACCOMP	SOLO	MELODIA	DIA-PASON	TROM BONE	FRENCH HORN	ENGLISH HORN	VOX HUMANA	STRING					
FULL	8'	8'	8'	8'	8'	8'	8'	8'					

CLASSICAL

III

'America'

Play the right hand on the Upper Manual, with the left hand on the Lower Manual.

NORMAL	OFF	16'	SOFT							REC.	OFF	SLOW	LIGHT	OFF
ORGAN VOLUME	PEDAL SUST.	PEDAL	PEDAL	PEDAL	VIBRA-HARP	HARPSI-CHORD	GUITAR	MUSIC BOX	MANUAL SUST.	MANUAL SUST.	VIBRATO	VIBRATO	VIBRATO	
SOLO	ON	8'	MED	FULL	VIB S-H SUS-L	SUS-M	VIB S-H SUS-L	SUS-L	LONG	ON	FAST	HEAVY	ON	

SOLO	TROM BONE	FLUTE		FLUTE	CLARINET	TRUMPET	OBOE	STRING		FLUTE	STRING	SOLO	QUINT
16'	16'	16'		8'	8'	8'	8'	8'		4'	4'	8'	5 1/2'

SOFT													
ACCOMP	SOLO	MELODIA	DIA-PASON	TROM BONE	FRENCH HORN	ENGLISH HORN	VOX HUMANA	STRING					
FULL	8'	8'	8'	8'	8'	8'	8'	8'					

HYMNS

1

Play the right hand on the Upper Manual, with the left hand on the Lower Manual.

NORMAL	OFF	18"	SOFT					MED.	OFF	SLOW	LIGHT	OFF	
ORGAN VOLUME	PEDAL SUST.	PEDAL	PADAL	PEDAL	VIBRA- HARP	HARPSI- CHORD	GUITAR	MUSIC BOX	MANUAL SUST.	TAMBO- SUST.	VIBRATO	VIBRATO	
SOLO	ON	B'	MED	FULL	VIB S-H SUS-L	SUS-M	VIB S-H SUS-L	AUS-L	LONG	ON	FAST	HEAVY	ON

SOLO 16'	TROM BONE 16'	FLUTE 16'	SOLO 8'	FLUTE 8'	CLARI NET 8'	TRUMPET 8'	OBOE 8'	STRING 8'	SOLO 4'	FLUTE 4'	PIANO 4'	VIOLA 5 1/2'	CELESTE 5 1/2'
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SOFT								
ACCOMP	SOLO	MELODIA 8'	DIA PASON 8'	TROM BONE 8'	FRENCH HORN 8'	ENGLISH HORN 8'	VOX HUMANA 8'	STRING 8'
FULL								LOWER

Play the right hand on the Upper Manual, with the left hand on the Lower Manual.

NORMAL	OFF	10	SUBT									SLOW	LIGHT	OFF
ORGAN VOLUME	PEDAL SUST.	PEDAL	PEDAL	PEDAL	VIBRA HARP	HARPSI- CHORD	GUITAR	MUSIC BOX				VIBRATO	VIBRATO	VIBRATO
SOLO	ON	8	MED	FULL	VIB S-H SUS L	SUS-M	VIB S-H SUS-L	SUS L				FAST	HEAVY	ON

SOLO 16	TRCN BONE 16	FLUTE 16	FLUTE 8	CLAR. "B" 8	TRUMPET 8	CB 1 8	STRING 8	FLUTE 4	STRING 4	SOLO ST 5 1/2	QUINT 5 1/2
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SOFT								
ACCOMP	SOLO	MELOD A 8	DIA PASON 8'	TROM BONE 8'	FRENCH HORN 8'	ENGLISH HORN 8	VOX HUMANA 8	STRING 8
FULL								

111

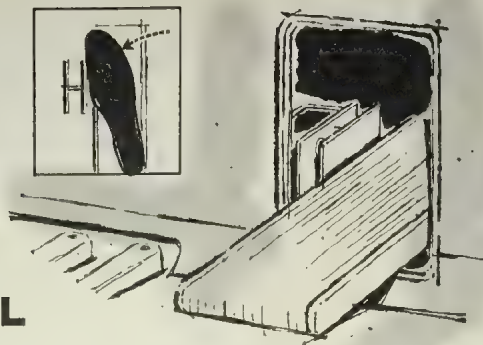
Play the right hand on the Upper Manual, with the left hand on the Lower Manual.

[illegible]

SOLO 3%	TROMBONE 16'	FLUTE 16'		FLUTE 8'	CLARINET 8'	TRUMPET 8'	OBOE 8'	STRING 8'		FLUTE 4'	STRING 4'	SOLO 3%	QUINT 5%
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SOFT							
ACCOMP.	SOLO 8'	MELODIA 8'	DIA- PASON 8'	TROM BONE 8'	FRENCH HORN 8'	ENGLISH HORN 8'	VOX HUMANA 8'
FULL							STRING 8'

LOWREY GLIDE CONTROL



There are many reasons why your Lowrey is such a superior instrument. If you have carefully read the previous portions of this book, you are now aware of those many advantages. Once you feel you have obtained some familiarity with your new instrument, you are ready to move into the use of the **exclusive** Lowrey Glide Control.

Musicians everywhere—amateur, artist, and professional—all say that the exclusive Lowrey Glide Control is the greatest organ development in recent years. Some organists are not even aware that it is available; and not many realize the wonderful way in which it enhances the orchestral voices of the trombone, clarinet, trumpet, strings, flutes, etc.

The Lowrey Glide Control is located on the left side of the Expression Pedal. When pushed to the left by the inside of the right foot, the Glide Control will "flat" the entire instrument about a half tone and stop the vibrato almost completely. And, when the Glide Control is released by the foot, the instrument will "glide" back to its normal pitch and vibrato as determined by the stop tabs.

For the best playing technique, the Glide Control should be pressed with the foot at the **exact instant** certain keyboard notes are played—and then released at once. For example, start using the Glide Control by trying it with the Trombone 16' and a Slow-Heavy Vibrato. Play Tommy Dorsey's familiar "I'm Getting Sentimental Over You" with "glide," and you'll be able to duplicate that well-known trombone "smear." No other organ can do this!

Also, you can get a realistic string "glissando" by using the Lowrey Glide Control together with the String 8' of the Upper Manual, and the Fast-Heavy Vibrato. Try Victor Herbert's beautiful "Sympathy," or any other of your favorite violin selections. The Glide Control will supply the "glissando" of the strings. Adding the Manual Sustain will give the effect of "singing strings."

For Hawaiian guitar effects, you can use the Clarinet 8' with a Slow-Heavy Vibrato, the Flutes 8' or 4' with a Fast-Heavy Vibrato, or a combination of any of these tabs, with any Hawaiian selection of your choice. Be sure to use the Long Manual Sustain and play in a semi-staccato fashion. Press the "glide" the instant you strike a key. However, use it infrequently—do not abuse it by playing most notes with glide. The realism of this Hawaiian Guitar effect will amaze you.

Like anything new, a few minutes of practice are necessary for you to become adept with the Lowrey Glide Control. As time goes by, however, you will find more and more uses for it. Of course, your ability to use it will also improve. To quickly improve your use of the glide, listen carefully to records, radio and television. Pay particular attention to the way musicians play their various instruments.

Also, whenever you try these different effects with Glide Control, be sure to remember that it is important to select the correct vibrato. Making sure of this is just as important as selecting the proper individual voice tabs on the manual.

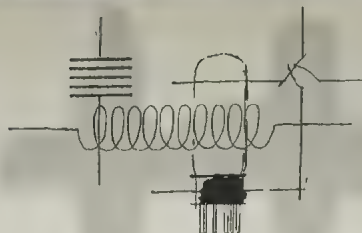
electrical information

TUNING

Because Lowrey's electronic circuits are very stable and the positively locked oscillator system was carefully tuned at the factory, your Lowrey Organ will probably never need to be tuned. However, if a special use requires a change in pitch of the entire organ, such as playing with a piano or other instrument not using the standard A-440 pitch, this can be accomplished in a few minutes with the Lowrey. A "tuning wand" is provided on the frame below the generator chassis. We recommend that you contact your Lowrey dealer for this service. Do not tune until the organ has been on for about twenty minutes.

MASTER VOLUME CONTROL located on the Amplifier (see fig. 1) is used to set the volume to suit the room playing conditions (i.e. size, absorption, etc.). To reduce volume turn clockwise.

NEVER PLUG THE ORGAN INTO A DC OUTLET—DAMAGE MAY RESULT. The line cord from the rear of the Console **MUST BE PLUGGED INTO STANDARD 110-120 Volt AC LINE.** (If the power supplied in your area is other than 110-120 Volt AC, 50-60 cycles, be sure there is a notice on the back of the Console that corresponds to your special power requirements.) Normal voltage fluctuations won't affect your Lowrey, although regulation by your electrician may be required if voltage goes above 125 or below 100 volts.



The "OFF-ON" switch is located to the right of the lower keyboard. The near-by pilot light indicates when the organ is "On." In extremely humid areas a special heater may be installed to protect against dampness. In order for this heater to operate, **keep the line cord plugged into the wall outlet at all times**—very little electricity is consumed. If you move to a humid climate, ask your local Lowrey dealer to install one of the special heaters in your Lowrey.

An **AUXILIARY SPEAKER JACK** is provided in the center of the amplifier power-supply chassis at the rear of the organ. Remove the back and you will see this chassis just above the rear of the pedal keys. The jack is wired across the output transformer, 8 ohm secondary. It is used for adding an external speaker—or another amplifier which in turn can drive an additional speaker or speakers. Impedance matching is not critical for normal use because additional distortion will not result except at higher output levels.

The power amplifier consists of two push-pull 6L6GB tubes—Maximum signal power output—26 watts. Two 10" PM heavy duty speakers with voice coil impedance of 8 ohms are wired in parallel to match the secondary 4 ohm impedance of the output transformer.

check list

If your Lowrey Spinnet becomes inoperative or does not function properly, first follow this simple step-by-step Check List before calling for service.

1. Make certain that the line cord is plugged into **live** AC outlet. Make sure the wall receptacle is not faulty. Hum from the speaker may be reduced by reversing the line-cord plug in the wall outlet.
2. Be sure the "Off-On" switch is on. Pilot light will indicate, but as these occasionally burn out, check back of console to see if any tubes are lighted.
3. **FUSE:** There is one fuse for the entire organ. If pilot light and none of the tubes are lighted, check for blown fuse on the Amplifier-Power Supply chassis.

Fuse is easily removed. Turn red insert counter-clockwise with screw driver until it comes out. The fuse can then be pulled from the insert and a new one installed.

CAUTION: Use only 3.2-Amp "Slow-blo," Type 3 AG fuse

4. At least one white voice tab must be "on" before a manual will play.
5. The Swell Pedal must be depressed to bring up volume.
6. If all of the above have been checked and operation is still not normal (and you are sure all the tubes are in tight), there may be a faulty tube. Read the following pages which contain information on tube replacement or call your dealer for service.
7. The name plate containing model and serial number of your Lowrey Spinnet is located on the rear of the cabinet near the bottom. Include model and serial number in any correspondence.

A competent service technician should be consulted if difficulties persist. Your Lowrey dealer is best qualified to handle this, although any good radio-television technician should be able to handle necessary repairs. Schematic diagrams will be furnished to owners upon request. Please send check or money order for \$2.00 and remember to include the **model and serial number** in any correspondence.

tube replacement

Past experience has shown us that although many purchasers of Lowrey Organs have no technical understanding of the vast field of electronics, they are able to replace a defective tube. So, this material has been prepared for those who know something of the subject.

There are only seven different types of tubes in the entire Lowrey Heritage Organ. Since they are standard radio and television tubes in common use every day, replacements can be purchased at your Lowrey dealer's or at any radio or TV repair shop.

tone generators

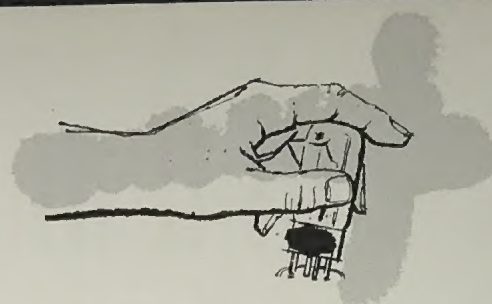
After removing the back of the organ you will see a large chassis containing the 48 tone generator tubes. (See Figure I) This chassis is divided into twelve sections, each one of which produces the family of tones as indicated by the stamping next to the square metal can. Since, for the purpose of this discussion these twelve sections are all the same, we will consider only one.

The tube which produces the highest tone for a family of notes is in the V-1 socket closest to the metal can. The next tube in the V-2 socket is locked to it and produces the tone exactly one octave lower. Likewise, the next tube in the V-3 socket is locked to the V-2 tube and produces the tone exactly one octave lower. The tube farthest from the metal can (in the V-4 socket) is locked to the third and produces the lowest tone of the keyboard. Thus, if the tube nearest the can (V-1) becomes faulty, not only the tones produced by it but also the lower octavely related tones will be faulty too.

Here's how to find a faulty generator tube. Turn on the Flute 8', the Melodia 8' and the Swell Pedal to full volume. Play all the **lower manual** keys in succession starting at the highest E on the right—proceed downward listening carefully **for the first defective tone. Be sure this is the highest defective tone on the manual.** If the tone from the corresponding key on the upper manual is also defective, a generator tube may have failed.

To locate the faulty tube, refer to the keyboard chart (Figure II) and determine in which of the three groups of keys the highest faulty tone is produced. If it is V-1, the tube is nearest to the metal can in that generator section. V-4 is the farthest from the metal can.

Note: It is impossible to catalogue the many various effects which can result from a "defective" tube. The word "defective" merely indicates no sound at all or some sound other than that which should be obtained. For example, the tone could be off pitch or could even be an octave too high.



For example, let us presume that you have determined the V-2 tube in the G generator to be faulty. To check this, remove this tube and exchange it with the V-2 tube in the adjacent generators of A or F. Because you know the tubes in the A and F sections are operating properly, any of them can be used for testing. Now, all G notes should operate properly but the highest faulty tone will be in the generator section where the previously determined faulty tube has been placed. Remember, all 48 of the 6X8 tubes in the tone generators are the same.

Hint: When the sustain tabs are on, sometimes a tube may produce a tone which plays quietly at all times even when no key is depressed. Determine the family of the "leaky" tone and pull out the 6X8 tubes from this section one at a time, starting with the one **farthest** from the metal can. The first tube which silences the tone when removed, is the one that requires replacement.

You have now learned how to locate a faulty tube anywhere in the group of forty-eight tubes in the tone generator chassis. If this method does not disclose a faulty tube in the generators, contact your dealer for service.

quality control chassis

Next, let us consider the Quality Control Chassis. This is above the tone generators and to the right as you face the rear of the organ. It contains five (5) tubes arranged in a horizontal row. The five tubes in this chassis have a variety of functions. When one of these fails, substitutions can be made to locate the faulty tube. Several types of faults are covered below to help you find the defective tube.

groups of notes

Depending upon the tabs used, if an entire keyboard does not respond or if a group of consecutive keys produces no tone or a defective tone, the faulty tube in all probability is in the sockets V-49, V-50, V-51, V-52, V-53 (all 6SL7 or 12AX7) or V-58 (6X8).

Temporarily substitute a new 6SL7 tube in V-49, V-50, V-51, V-52 and V-53 until fault is corrected. The tube last removed is probably defective.

If the 16-foot voices fail to sound in the lowest octave of the upper manual, or if the lowest 8 keys of the lower manual fail to respond, the fault in all probability is V-58 (6X8). Exchange the tubes in V-57 and V-58—if the manuals then operate correctly, the tones may not operate properly and a new 6X8 (V-57) will be required.

UPPER MANUAL KEYBOARD CHART

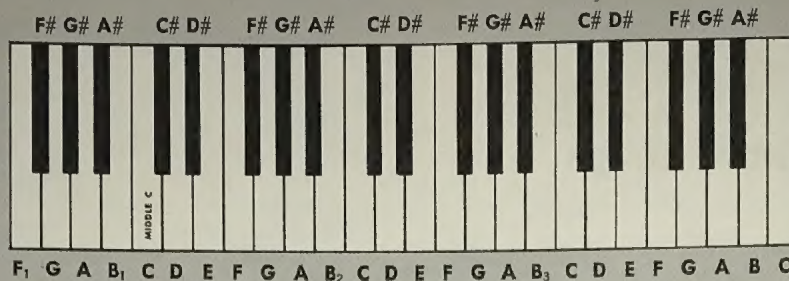


Figure II

VIBRATO

If the vibrato becomes defective on all notes of the organ, the offending tube could be in V-51 or V-54. V-51 may be exchanged with V-50, V-54 may require a new tube replacement (12AX7). Then, the faulty tube in V-50 should produce certain defects on the manuals and should be replaced.

If the vibrato is defective on only **one family** of tones (all Fs or all Gs) the tube in V-1 of that generator may be faulty. Exchange it with the tube in V-1 of another generator and the faulty vibrato should move to the other family of notes.

PEDAL KEYBOARD

If the pedal tones lose their volume or become defective, the fault is probably with a tube in V-53, V-54, V-55, V-56, or V-57. V-54 and V-55 require new replacements as there are no duplicates in the organ.

To check V-56 and V-57, substitute any 6X8 from the main tone generators.

NOISES, DEAD OR WEAK (ALL STOPS)

V-52 tube on the Quality Control chassis is an ampli-

fier for all stops. Exchange this tube with V-51 and if the manuals play correctly, the tube now in V-51 is probably defective.

AMPLIFIER-POWER SUPPLY CHASSIS

This chassis just above the pedal mechanism contains four tubes. A defective tube here will affect the entire organ rather than any particular stop, group of keys or a manual.

NOISES, DEAD OR WEAK

To check V-59, replace it with a new 6SN7 or 12AU7 tube.

V-60 and V-61 are the power output tubes (6L6GB). Since they work together, to test these tubes, a new tube should be tried in each of these sockets.

The 5U4 tube in the V-62 socket is the rectifier and since only one of these is used in the instrument, a test would have to be made with a new tube.

FUSES BLOW

If the fuse blows, in all probability the offending tube is the 5U4 in V-62. However, there is always the lesser possibility that either 6L6GB tube in the V-60 and V-61 sockets could be causing the trouble.

LOWREY MODEL DS rear view

LOWREY HERITAGE—REAR VIEW

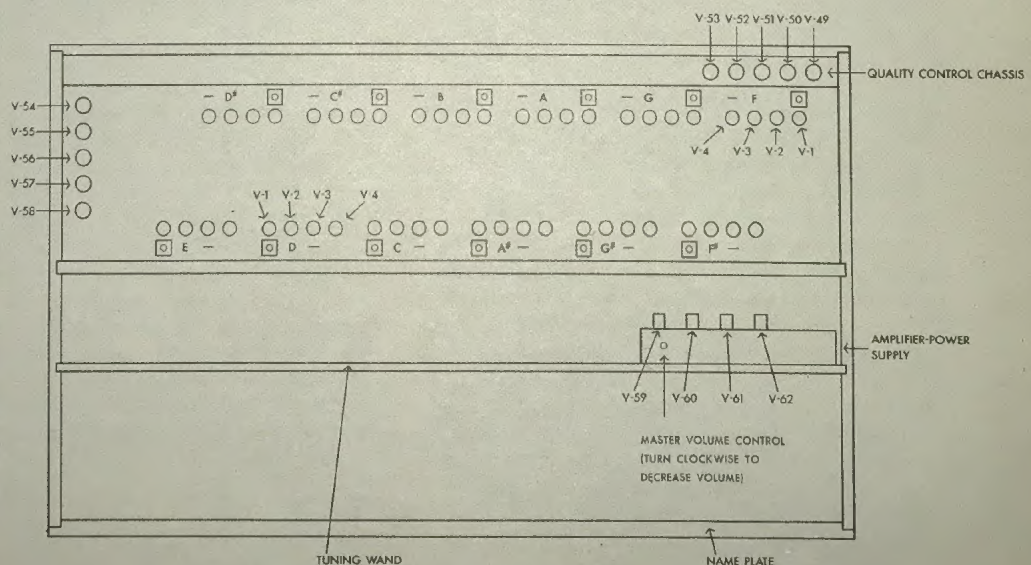


Figure I





Your Keys to the World of Music